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ABSTRACT OF THE DISCLOSURE

In a distributed computing environment, a message gate may be the message endpoint for a client or service. A message gate may provide a secure message endpoint that sends and receives type-safe messages. Devices may have a gate factory (e.g. message endpoint constructor) that is trusted code on the device for generating gates based on XML message descriptions. In one embodiment, the gate factory may construct a gate from the XML schema of the service, a URI for the service, and an authentication credential. Access to some services may be unrestricted. For such services, a gate may be constructed without an authentication credential, saving the overhead of running an authentication service and incorporating an authentication credential. Gate construction may also be optimized for certain clients that do not desire to perform checking of messages against a service's XML schema. If verification is not desired, a client may avoid or may chose to avoid building (e.g. by a gate factory) some or all of the gate code that checks the messages against the XML schema. Also, the building of a gate may be made lightweight by appropriate reuse or sharing of pieces used to construct other gates. Devices may maintain a cache of gates to avoid constructing them each time the same service is run.

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